COLORADO BUSINESS REVIEW

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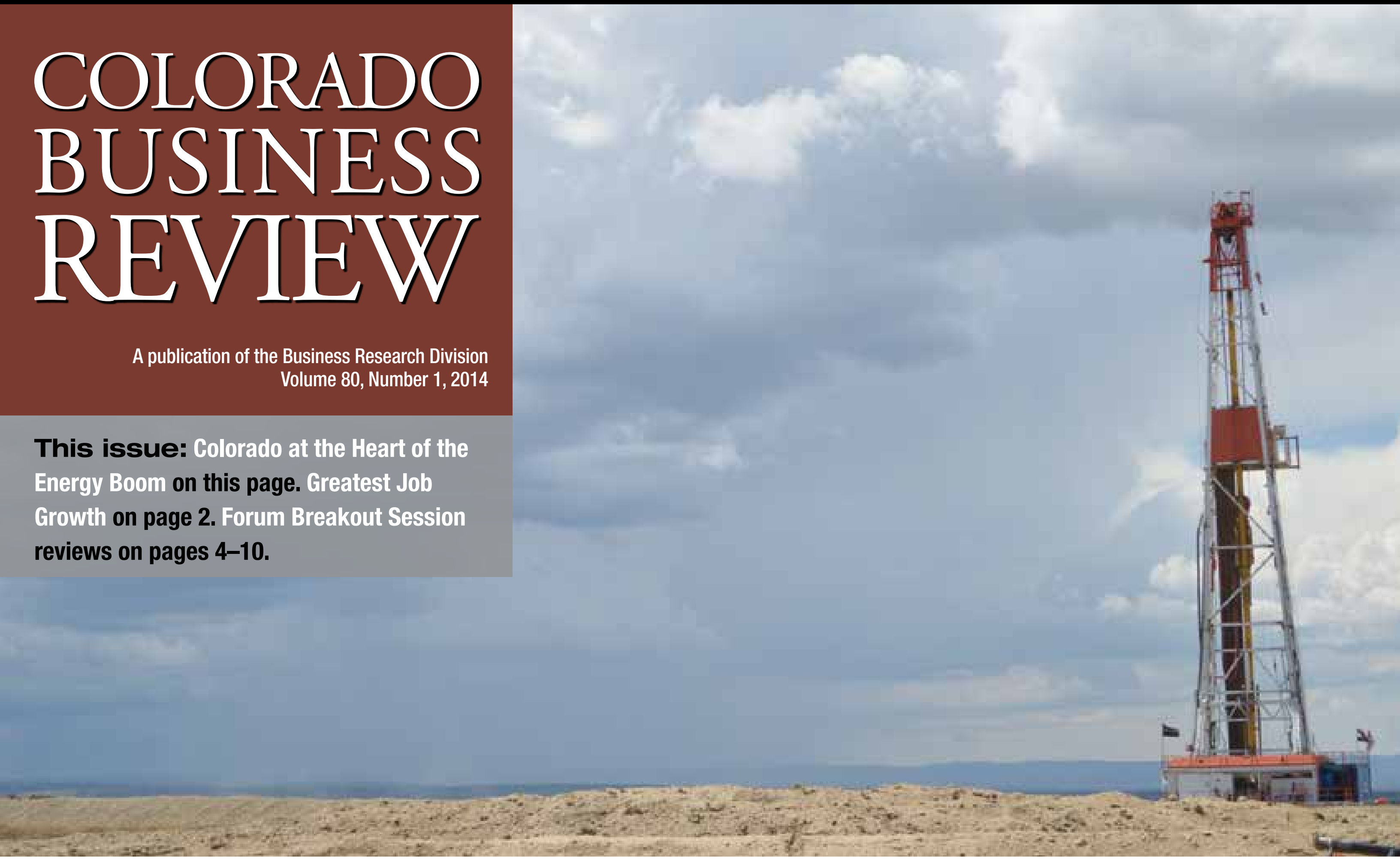

Photo courtesy of Encana.

Forum Keynote Address

Colorado Benefiting by Being at the Heart of America's Energy Boom

All Americans are benefiting from the country's oil and gas resurgence and Coloradans are playing an important role at the heart of the boom.

This was the key message from Encana's President and CEO **Doug Suttles** during his keynote speech to about 850 attendees of the 49th annual Colorado Business Economic Outlook Forum. Encana has a major presence in Colorado and has invested over $4 billion on oil and gas development in the state over the past five years.

"Only a few years ago it was commonly believed that the United States was running out of oil and gas resources. Liquified natural gas terminals were being planned to import natural gas and policy makers were debating the costs of importing oil to meet the growing energy demand in North America," said Suttles. "Today, the United States is expected to surpass Russia and Saudi Arabia as the world's largest oil producer."

How did this happen?

The oil and gas industry is a technology driven industry. For more than 100 years forecasters have predicted an early end to oil and gas. The one thing they commonly overlook is the role of technology and human ingenuity in expanding supply. In just under a decade horizontal drilling and advances in hydraulic fracturing have combined to unlock massive amounts of oil and gas from unconventional shale formations deep underground. Because of shale gas, the amount of natural gas that's technically recoverable in the United States reached a record estimate of 2,384 trillion cubic feet at the end of 2012 according to the Potential Gas Committee, a research panel based at the Colorado School of Mines in Golden. This is more than a 100-year supply. In the case of getting oil from shale, in 2011 oil and gas exploration and production companies operating in the United States added almost 3.8 billion barrels of crude oil and lease condensate proved reserves, an increase of 15%, the greatest volume increase since the U.S. Energy Information Administration (EIA) began publishing proved reserves estimates in 1977. As a result the United States has quickly

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Summary of Forecast

2013 and 2014 Will Post Greatest Job Growth in the Past Decade

From the Editor

As highlighted at the 49th annual Colorado Business Economic Outlook Forum held on December 9 in Denver, employment growth is expected in both goods- and services-producing sectors in 2014. The half-day event featured an employment forecast for 13 industry sectors and a keynote by Doug Suttles, President and CEO of Encana. Three industry breakout sessions rounded out the afternoon. Summaries of the day's proceedings are featured in this issue of the *CBR*. For additional details, visit leeds.colorado.edu/brd.

Richard Wobbekind

The following observations summarize the thoughts of the Colorado Business Economic Outlook committee members as of early December for 2014.

Job growth accelerated in Colorado in 2013, with the state adding 66,900 jobs, a gain of 2.9%. In June 2013, the state surpassed the previous peak employment reached in May 2008. The consensus of the 2014 Colorado Business Economic Outlook estimating committees is that employment growth will continue in 2014, with the state adding 61,300 new jobs.

Over the past 10 years, goods-producing industries lost a net 27,200 jobs, while services-producing industries gained 251,600 jobs. Both goods- and services-producing sectors are anticipated to add workers in 2014.

The goods-producing sectors will increase their employment base in 2014.

Agriculture—While total cash receipts to farmers and ranchers are projected to decline into 2014, expenses are anticipated to moderate only slightly. Real interest rates remain low, and fuel prices are trending downward. The year 2014 might be viewed as a transitional one in which both farmers and ranchers make adjustments stemming from lower corn prices. Net income is projected to fall by about 7%, to $1.48 billion, in 2014.

Natural Resources and Mining—Colorado has abundant natural resources, ranging from coal and natural gas to molybdenum and uranium. In 2013, Natural Resources and Mining employment declined by 200 jobs, or 0.7%. The value of production is anticipated to increase in 2014 for oil, natural gas, carbon dioxide, coal, minerals, and uranium. This will translate to modest employment growth, increasing 3.3%, to 31,100.

Construction—Perhaps one of the greatest casualties of the recession, this industry is exhibiting strong year-over-year growth in permits, values, and employment. Total value of Construction is estimated to rise 14.8% in 2014, to $15.1 billion. The largest increase is attributable to residential construction, which will grow to more than $1.4 billion in 2014. Total housing permits are expected to rise to 33,500, with 17.5% growth marked by year-over-year gains in both single-family and multifamily units. Employment will increase by 11,000 jobs, or 8.7%, in 2014.

Manufacturing—Following a decade of decline, Manufacturing employment is expected to increase for the fourth-consecutive year, ending 2013 with 700 more jobs (+0.5%) and 2014 with 1,700 more jobs (+1.3%). This growth will be mostly in the Durable Goods Sector.

The outlook for services employment shows growth in all sectors but Information in both 2013 and 2014:

Trade, Transportation, and Utilities—TTU employment is anticipated to increase by 9,100 in 2014, due to growth in wholesale and retail trade. Transportation and warehousing employment increased in 2013, and Utilities recorded no net change. It is projected that

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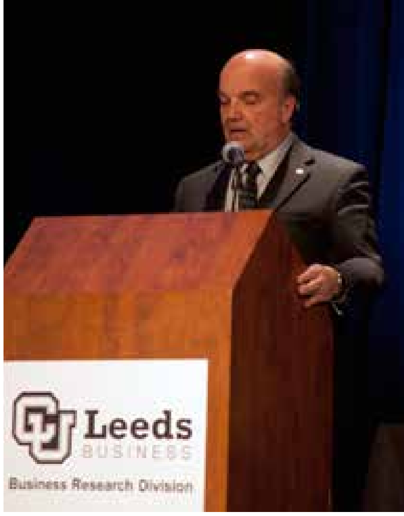
COLORADO ESTIMATED EMPLOYMENT LEVELS, 2003–2014
(In Thousands)

Sector	2003-2013[a]	2012[a]	2013[b]	2014[c]
Natural Resources and Mining	16.9	2.4	-0.2	1.0
Construction	-22.9	3.3	11.2	11.0
Manufacturing	-21.2	2.6	0.7	1.7
Total Goods Producing	-27.2	8.3	11.7	13.7
Trade, Transportation, & Utilities	15.4	7.1	11.1	9.1
Information	-14.9	-2.1	0.0	-0.3
Financial Activities	-3.3	2.4	4.6	2.7
Professional and Business Services	80.8	15.3	17.3	14.2
Educational and Health Services	77.8	8.4	8.9	8.0
Leisure and Hospitality	44.0	8.2	10.0	7.5
Other Services	11.4	2.0	1.8	2.0
Government	40.4	2.2	1.5	4.4
Total Services Producing	251.6	43.5	55.2	47.6
Total Jobs Created	224.4	51.8	66.9	61.3

[a]Estimated. [b]Forecast.

[c]Due to rounding, the sum of the individual sectors may not equal total

Sources: Colorado Department of Labor and Employment and Colorado Business Economic Outlook Committees.



GREATEST JOB GROWTH, CONTINUED FROM PAGE 2

Denver International Airport will record more than 52 million passengers in both 2013 and 2014. Retail sales are anticipated to rise 5% in 2014, following 4.2% growth in 2013.

Information—A best-case scenario is that the Information Sector will remain flat in 2013, and post a modest decline in 2014. In 2013, growth in telecom, software publishing, and film outweighed losses in traditional publishing. It is anticipated the many of the losses related to the telecom merger between CenturyLink and Qwest have already been absorbed in the Denver Metro region.

Financial Activities—The Financial Activities Sector began rebounding in 2012, adding 2,400 jobs. Despite some employment declines related to reductions in mortgage refinancing, the sector is still expected to add 4,600 jobs in 2013 and 2,700 jobs in 2014, with most activity concentrated in banking and other finance and insurance activities. Increased regulation and tepid loan demand will continue to impact the industry.

Professional and Business Services—Employment in this sector will increase by 14,200 jobs in 2014, building on gains in the Professional, Scientific, and Technical Services subsectors related to Colorado's high-tech industries and research institutions. Growth in the sector may be stronger if political and fiscal uncertainty subsides.

Education and Health Services—Private education and health care services are expected to add 8,000 jobs in 2014, demonstrating resilience both during and after the recession. Most of the growth has been in health care, driven by population growth and demographic shifts.

Leisure and Hospitality—Despite a number of setbacks in 2013 (e.g., fires, floods, drought), the Leisure and Hospitality industry added 10,000 jobs. The 2014 forecast calls for 7,500 additional jobs, mostly in the Accommodation and Food Services Sector. This forecast rests on a number of assumptions, including average snowfall and reasonable gasoline prices.

Government—Government is expected to add jobs in 2013 and 2014, but not at all levels. Federal government is expected to shed jobs in 2013 and 2014, continuing a trend that coincided with economic recovery in 2010. Sequestration will impact both direct federal jobs, as well as federal contractors. State and local government are adding jobs, with a portion of the increase related to education. Population continues to grow, pressuring the public education system to accommodate a growing number of students.

International Trade—Colorado's merchandise and commodities exports experienced strong growth last year. Strength included electronics, beef, medical and surgical equipment, orthopedic appliances, and engines and motors. Despite this, the state still ranks only 36th among U.S. states in dollar value of merchandise and commodities exports. Colorado's manufactured exports and commodities are projected to grow 10% in 2014, to $9.8 billion in sales.

The following observations summarize the thoughts of committee members for 2014:

National and International

- The ongoing debt ceiling debate creates uncertainty for the markets.
- Barring a fiscal crisis, U.S. GDP growth will accelerate, to 2.9%, in 2014.
- Fed policy will likely begin "tapering" as the economy improves, which may have some slowing implications for the housing market.
- Soft export demand from Europe will be partly offset by rising growth in exports to developing countries.
- The federal deficit will mark a third-consecutive year of decline, dropping to roughly $740 billion.
- Inflation will continue in check for another year, and interest rates will remain well below historic averages.

Colorado

- Employment growth will place Colorado in the top five states in 2014.
- Weather fluctuations will continue to cause volatility for agriculture production, as well as tourism.
- Home prices will continue to improve in Colorado as inventory is absorbed, foreclosures abate, and more home owners elevate from being underwater in their mortgages.
- In terms of population, Colorado is the seventh-fastest growing state in the nation in percentage terms and the ninth-fastest in absolute terms. The state will continue to be a popular place to live, with projected population growth of 1.7%.
- Colorado will sustain a sub-7% unemployment rate.

With Colorado's skilled workforce; high-tech, diversified economy; relatively low cost of doing business; global economic access; and exceptional quality of life, the state is poised for long-term economic growth.

For more information on each industry sector, visit leeds.colorado.edu/brd.

Real Estate: From the Great Recession to a Great Real Estate Boom

Rick Brubaker and Jim Dalton

Opinions expressed by panelists reflected the most current market information available as of early December.

An understanding of the real estate market is imperative as activity in this market is an indicator of businesses' confidence in the future. There has been much discussion about when the lagging U.S. real estate market will recover from the most recent recession. Panelists from this forum breakout session tackled this debate by discussing the recent real estate boom seen in the Denver metro area. Moderated by **Sherman Miller**, executive director of the University of Colorado Real Estate Center (CUREC) and former executive managing director for Cushman & Wakefield (C&W), panelists from real estate companies such as the Crosbie Real Estate Group, ARA, JLL, CBRE, and HFF detailed current figures and trends in the Metro Denver market for retail, multifamily, office, and industrial space, and investment. Over the past several years, the real estate market has expanded significantly, yet all of the panelists think there is still room to grow. Several factors describing the feasibility of this resonated throughout each of their presentations. The main factors expected to contribute to this growth are a rising population, continued job growth, a growing energy economy, and increasing foreign investment.

Retail

The Colorado retail market is finally starting to see some exciting changes as a result of built-up cash from businesses after the recession. **Scott Crosbie**, with the Crosbie Real Estate Group, described the current state of the Front Range retail market during the breakout session. Growth is prominent all around the market. The fast food sector is characterized by firms either dropping underperforming stores or renovating existing stores to keep up in the market. Firms such as Wendy's, KFC, and McDonald's are using this tactic to keep up with new stores from Dunkin Donuts and other fast food stores in the state. The renovation efforts used to modernize the stores have shown up to a 15% return on investment for the fast food chains. Restaurants are the fastest-growing sector in the retail market. National restaurants are moving to regional locations, such as Parker, Park Meadows, and Colorado Mills. Local restaurants are moving into the spaces vacated by the national restaurants. Both national and local restaurants are relocating to better locations to capture the spending of consumers who are willing to use their disposable income on dining. Similar growth trends can also be observed in the grocery and general merchandise markets. Stores such as Whole Foods, King Soopers, Walmart, and Sprouts are popping up all around the state. Crosbie expects these markets to become increasingly competitive as more large players enter the market. Soft-goods retailers have seen moderate expansion as well. Firms such as Kohl's, Nordstrom Rack, H&M, and Cabela's are expanding into new retail hubs to reach larger consumer demographics. Overall, retail developers are tying up key locations for retailers where the residential market is favorable. Yet, retail growth will continue to be sustained through fundamentals. Retailers require space, parking, visibility, access points, and spacing that must fit their values. Consequently, even if demand is there, the fundamentals must be intact for retailers to expand going forward.

Apartment/Multifamily

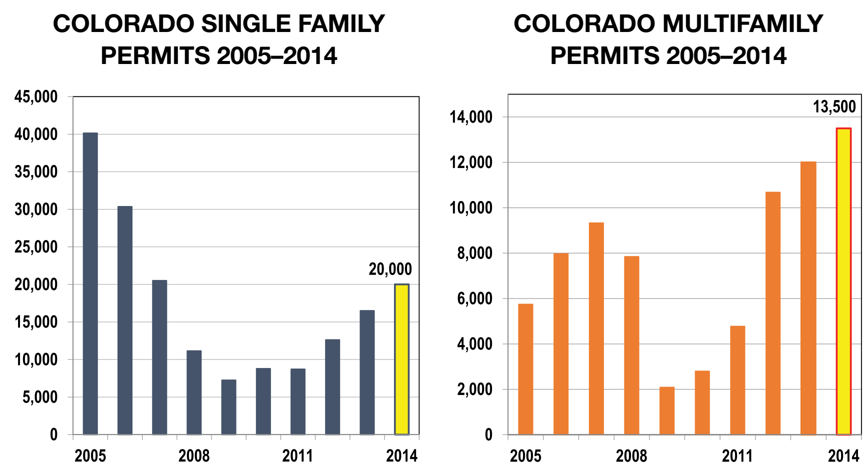
The Denver multifamily and apartment market was characterized by very little construction growth over the last year. In 2013, we saw the opposite. We are building units in concentration at record highs to make up for lost construction during the last decade and to catch up to growing demand (12,000 multifamily permits in 2013). In 2014, a little under 8,000 permits are expected to be completed. Future construction is anticipated around new transportation areas where RTD light rail projects will be completed. Panelist **Andy Hellman**, an associate at ARA, discussed the multifamily/apartment market and how the market achieved one of the top years in the Denver apartment market's history in 2013. In 2012, Denver saw $2.8 billion in total multifamily sales volume. One of the main demand drivers noted by Hellman is that Denver's population growth is centered on recent graduates. Schools in the Metro Denver area are graduating almost 34,000 students annually, and most are becoming renters as they cannot afford to take out a home mortgage. This overall decline in homeownership rates and rise in population, coupled with increasing home prices, is causing vacancy rates to drop at a staggering rate, to a low of 4.4% in Denver. As a result of simple supply and demand and new construction of valuable multifamily units in Downtown Denver, the demand for housing is high. The bottom line is that rents will continue to increase while vacancy rates will hover around 5%. As the economy picks up, inflation will slowly rise yet our market is poised to continue on this positive trend moving forward to sustain moderate growth in the multifamily market.

Office Market

Denver's office market has been on an upward trend in 2013. In 2013, job growth in professions that use office space slowed slightly, yet still remained around a healthy 3%. Denver's office market is considered to be on the rising phase of the real estate cycle and is near the forefront of recovery compared to other cities in the United States. Panelist **Peter Schippits**, senior vice president at JLL, explained the general conditions and outlook for the Denver office market. Denver's central business district (CBD), which had the highest residential vacancy rate in the metro area in 1990, is expected to post faster population gains compared to other areas in Denver. Denver's absorption rate is average compared to a number of markets, but it outpaces many metropolitan competitors such as Austin, San Diego, and Phoenix. Denver's office space recovery will be driven by technology and energy firms. Though our economy is more diverse, energy firms will be the leader of economic recovery as the boom in natural gas has significantly stimulated activity in the CBD. Some general highlights of the Metro Denver market dynamics are that there is a 14.2% direct vacancy rate (below absorption), the number of buildings under construction has increased dramatically over the past year, speculative construction is now a viable option for some submarkets, and that the 200 blocks of available space in the market are expected to decrease over the next few quarters. Similarly, the Southeast suburban market has a 11.5% direct vacancy rate, which is below absorption and is very versatile as the market has many options for tenants under 100,000 square feet. The direct vacancy rate of the Northwest market, which is 13.8%, will remain relatively flat. Sluggish leasing activity is expected to speed up this year. In addition, Denver's office space is becoming an attractive market for coastal investors.

Industrial

Though the U.S. construction market remains cloudy, the future for the Colorado industrial real estate market remains bright. Panelist **Jeremy Kroner**, with CBRE, summarized the current state of the industrial real estate market in the Metro Denver area. Kroner detailed the Northeast market and the Northwest market, two markets that represent more than 80% of Colorado's industrial real estate space. Kroner is confident that industrial real estate growth in Denver will continue over the next few years because of the city's strong fundamentals. Denver will remain a regional distribution hub for food production, high-technology and medical manufacturing, oil and gas, construction materials, and medical marijuana firms that will continue to drive demand as more firms enter the market and require additional space. Denver is also experiencing positive net migration. Las Vegas and Phoenix, metropolitan competitors of Denver, have experienced more out-migration than in-migration over the last few years. Denver, on the other hand, is experiencing positive in-migration from young and highly educated individuals who are coming to the city to start businesses that will set up the city well for future growth. Finally, clear cost distribution products are about 12–18 months ahead of flex space, meaning clear cost distribution space is on the rise, and lease rates will start to rise over the next 2–3 years. Flex space is settling into stabilization, and lease rates are expected to remain flat over the next few years. Overall, industrial availability rates remain low at 4.9% in Q2 2013 (compared to a natural rate of 6–7%)—meaning the market has room to absorb all of the new construction and take on new lease rates at the same time.



Sources: U.S. Census Bureau and Colorado Business Economic Outlook Committee.

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To view the panelists' presentations from this forum breakout session, please visit the Business Research Division website at leeds.colorado.edu/brd.

NAFTA 20 Years Out

Ryan Thorpe

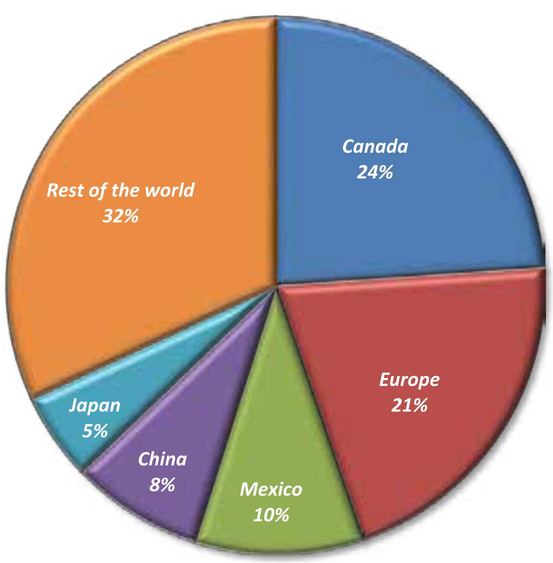
The North American Free Trade Agreement (NAFTA) has revolutionized international trade between Canada, Mexico, and the United States. In this breakout session moderated by **Karen Gerwitz**, president of the World Trade Center in Denver, panelists shed light on how NAFTA has benefited the three countries involved. NAFTA has been responsible for $17 trillion in trade revenue between the three countries since its founding in 1994. Trade between the United States and Canada has tripled, while trade between the United States and Mexico has quadrupled. With international trade, issues often arise between nations. Panelist **James E. Nelson**, an attorney with Lindquist & Vennum, touched on the mechanisms created by NAFTA to resolve conflicts between nations and streamline the differences between the countries' legal systems.

United States

NAFTA created the largest trade agreement, linking more than 460 million consumers. Panelist **Paul Bergman Jr.** of the U.S. Export Assistance Center expanded on the benefits that the United States has seen as a result of NAFTA. Canada and Mexico have become the top two destinations for U.S.-produced goods. Since NAFTA has gone into effect, exports to Mexico reached $216.3 billion in 2012, an increase of 420%, while exports to Canada have climbed 191.2%, totaling $291.8 billion in 2012. Five million jobs in the United States are supported by increased trade with Canada and Mexico. NAFTA has allowed for increased foreign direct investment in the United States, reaching $237.2 billion in 2012.

Colorado has felt the positive side effects of NAFTA as well. Panelist **Tim Larsen**, senior international marketing specialist at the Colorado Department of Agriculture, reported that trade with Mexico and Canada reached $849 million and $2 billion, respectively, in 2012. Within Colorado, the agriculture industry has been the largest benefactor of NAFTA, with agricultural exports to NAFTA totaling $731.7 million in 2012—400% growth from 1993. Colorado agriculture depends greatly on exports due to the fact that the industry can produce more than can be consumed locally. Eighty percent of Colorado farmers need to export in order to survive. Every day, trucks full of crops leave Colorado for the Mexican and Canadian borders. In Colorado, 90,000 jobs can be attributed to the dramatic increase in trade between NAFTA countries.

COLORADO EXPORT MARKETS JULY 2013 YTD



Source: World Institute for Strategic Economic Research (WISERTrade).

Canada

Trade has always been a key source of revenue for Canada, contributing to 51% of the nation's GDP. With Canada's population one-tenth the size of the United States and its land mass comparable to Russia, goods have always been produced in excess. Panelist **Marcy Grossman**, Consul General of Canada in Denver, discussed how NAFTA has benefited Canada. With 80% of its cities within a one-hour distance of the U.S. border, the United States is Canada's largest trade partner. Current trade between the two nations is valued at $700 billion, with the United States consuming 73% of Canadian exports. Mexico ranks fourth for Canadian exports and third for imports to Canada. The Keystone XL Pipeline that would extend from Canada into the United States, contributing to North America becoming energy self-sufficient, is being negotiated. This would lead to economic growth and increased security, allowing the United States to minimize oil imported from the Middle East.

Mexico

Before NAFTA no precedence existed for far-reaching agreements between a developed country and a developing country. Panelist **Adrian Garcia**, Consul General of Mexico in Denver, elaborated on the effects of NAFTA on Mexico. Trade with the United States has increased 5.4 times and trade with Canada has increased 8.7 times since NAFTA was enacted. To emphasize the significance of this agreement for Mexico, it receives more exports from the United States than Brazil, Russia, India, and China (BRIC countries) combined. NAFTA opened new markets for Mexican consumers, providing access to better pricing and higher-quality products. Mexico's demand for new technology and other products has provided small business owners in U.S. technology and service industries with new growth opportunities. None of this would have been possible without NAFTA.

Although there have been many successes with NAFTA, the agreement has not come without challenges. U.S. trucks traveling into Mexico still can only travel within a 26-kilometer trade zone, while Mexican trucks have a range of 100 miles inside U.S. borders. The poor border infrastructure causes truckers to wait for hours before they are granted permission to pass through. Cooperation between the two nations has set the grounds for improvement, allowing for increases in efficiency and trade.

The success of NAFTA has formed the foundation for many other free trade agreements around the world, such as the pending Trans-Pacific Partnership and the Transatlantic Trade and Investment Partnership. NAFTA has allowed Canada, Mexico, and the United States to manufacture goods jointly due to the integration of supply chains, which has added more value to goods traded between the three countries. Through this free trade agreement, NAFTA countries have become more competitive in the global market and improved the quality and value of goods produced. There is no doubt that the establishment of NAFTA has benefited each of the three countries involved.

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MAJOR DESTINATIONS FOR COLORADO EXPORTS OF MANUFACTURED GOODS, MINERALS, AND AGRICULTURAL PRODUCTS
2009–2012
(In Millions of Dollars)

Country	2009	2010	2011	2012	2012 Percentage of Total
Canada	$1,772	$1,659	$1,541	$2,001	24.5%
Mexico	584	590	755	849	10.4
China	440	558	635	676	8.3
Japan	276	318	393	427	5.2
Switzerland	159	186	241	245	3.5
Netherlands	175	331	316	280	3.4
Korea, Republic Of	122	201	226	266	3.3
Malaysia	179	175	208	224	3.0
Hong Kong	121	139	174	234	2.9
Germany	220	321	314	282	2.7
Brazil	81	124	106	172	2.5
United Kingdom	142	213	247	205	2.3
Philippines	151	211	222	191	2.1
Taiwan	108	156	181	144	2.1
Australia	129	161	179	172	1.9
France	94	121	142	155	1.8
Belgium	146	141	131	137	1.7
India	95	102	119	119	1.5
Saudi Arabia	41	38	33	45	1.1
Singapore	88	100	105	92	1.1
Total Top 20 Countries	5,123	5,844	6,269	6,916	61.0
All Other Countries	745	882	1,063	1,252	15.2
Total All Countries	$5,867	$6,726	$7,332	$8,167	100.0%

Sources: Foreign Trade Division of the U.S. Census Bureau and World Institute for Strategic Economic Research (WISERTrade).

Forum Breakout Session

Fires, Floods, and Drought: Assessing the Impacts

Noah Seidenfeld

Natural disasters are adverse events caused by nature that humans have no control over. Though natural disasters in Colorado are typically few, in 2013 they affected many Coloradans. The year was marked by floods, the Black Forest fire, and a statewide drought. The natural disasters in Colorado cost precious lives, damaged property, exacerbated communities, ruined businesses, and resulted in lost work days. **Brian Lewandowski**, research associate with the Business Research Division, moderated this forum breakout session that examined the impact of the devastating droughts, forest fires, and floods that occurred in the state in 2013.

Ron Carleton, Colorado Deputy Commissioner of Agriculture, offered a detailed look on how a drought can put a damper on GDP growth in a state, especially on the value of exports. Droughts in Colorado are caused primarily by a limited snow pack and an inadequate amount of rain. In August 2012, the entire state of Colorado was in a drought. This widespread dry spell had a drastic impact on the Colorado agriculture industry. Colorado's agriculture industry has $40 billion in economic activity and currently employs 171,000 people. The agriculture industry exported $1.049 billion in 2009 and a projected $1.891 billion in 2013—an 80% increase in just four years. With the extremely dry conditions in August 2012, this projection was revised down to just over $1.5 billion, more than $350 million less than the original projection. Hay prices, which generally tend to remain steady, nearly doubled in a three-month period. With that

increase, cattle prices also increased due to the increase in feed costs. Corn prices spiked in 2012 at nearly double the price of the previous year. According to a study done by Colorado State University, the 2012 drought in Colorado decreased revenues by $409 million, which resulted in more than $726 million in foregone economic activity. Despite enduring one of the harshest droughts in more than 50 years, Colorado's agriculture industry fared remarkably well in 2012 given the conditions. Lower crop yields were offset by higher market prices, especially for corn, hay, and wheat. Poor pasture and grazing conditions forced ranchers to cull herds and market calves earlier than normal; however, cattle producers were able to sell into a relatively strong market. Although farmers are still being impacted by the drought, April snow storms, August monsoonal rains, and September floods reduced the severity of the drought in 2013.

Dry conditions across Colorado tend to lead to forest fires. The incidence of Colorado wildfires has increased over the past five decades according **Tom Zwirlein**, professor of finance and the director of the Southern Colorado Economic Forum at the University of Colorado Colorado Springs. In terms of acres burned, 93% of the largest forest fires have occurred since 2000, with the Black Forest fire the largest to occur in the past year. Even though suppression costs totaled $8.5 million, that amount represents only a fraction of total wildfire costs. In 2013, the Black Forest fire had an estimated $17 million in economic loss and $38 million in physical losses, and destroyed 511 homes. The fire also cost the region 71 jobs. The total economic impact is estimated at $87 million for rebuilding.

The rainfall in September left the Boulder area with 85% of its average annual rainfall in just four days. **Bob Eichem**, chief financial officer for the City of Boulder, reported on data showing that 24 of the 64 counties in Colorado were impacted by the floods in September. In total 18,000 homes

were evacuated. The economic impacts are massive. The floods cost the City of Boulder $40–$50 million and the City of Longmont $140–$150 million, with total damages estimated at $1–$2 billion across the state. The tourism industry experienced the greatest impact with many road closures. Although the floods have been costly to the region, the rebuilding process also creates jobs in the region.

With such an unusual year bringing widespread economic impacts across the entire state of Colorado, farmers, businesses, and residents alike can only hope that 2014 will be a more typical year.

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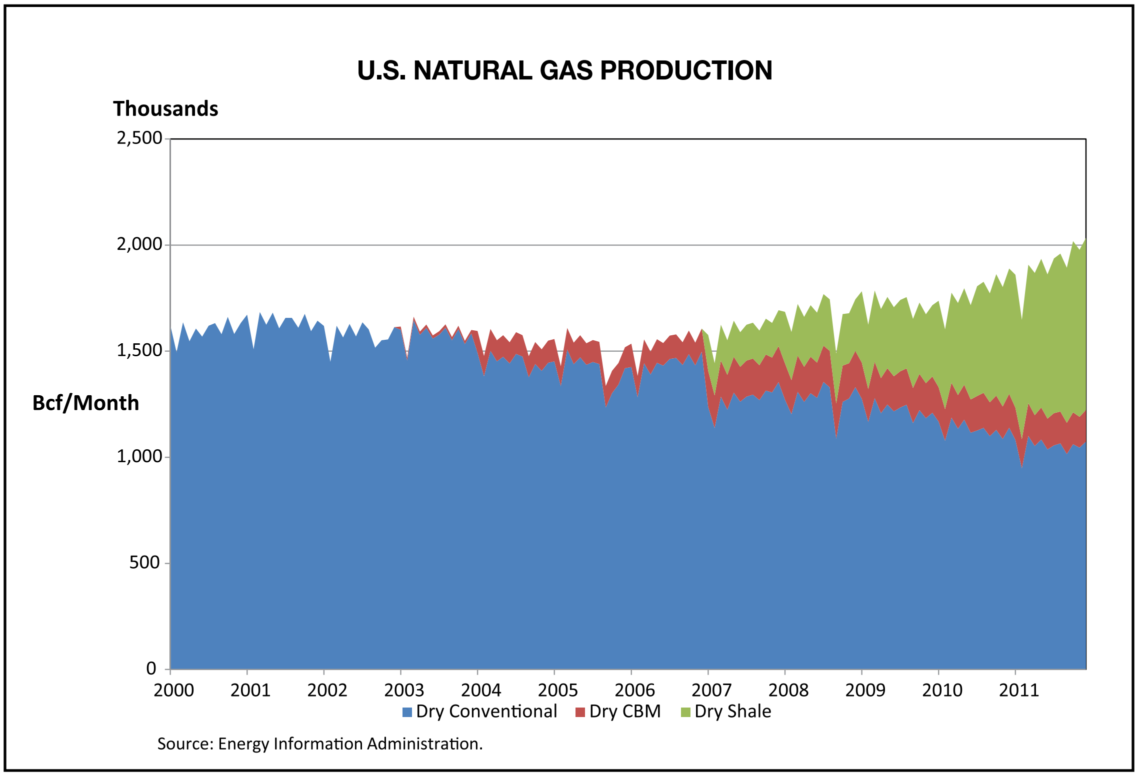
To view the panelists' presentations from this forum breakout session, please visit the Business Research Division website at leeds.colorado.edu/brd.

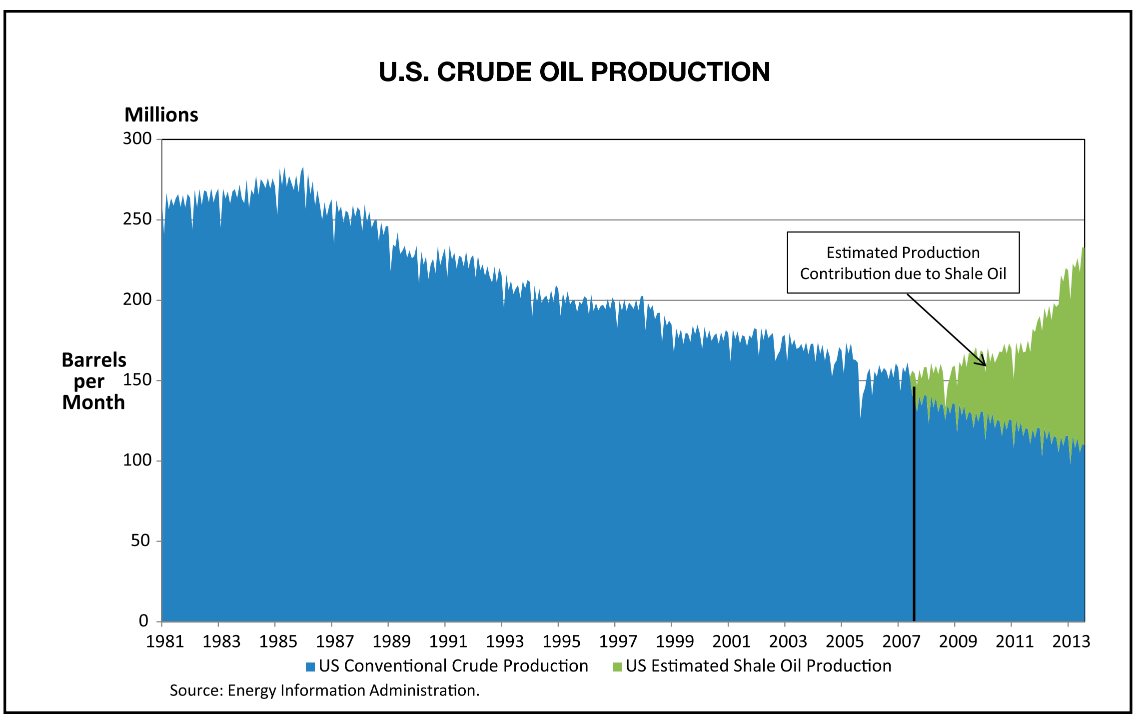
retaken its position as one of the leading global energy producing nations.

"Domestic energy is the best kind of energy," added Suttles. "Energy security is in the best place it's been in decades and everyone in America is benefiting from our increased domestic production."

Benefits range from increased jobs to lower energy costs. IHS, a leading provider of diverse global market and economic information, estimates that the oil and gas industry supported 1.7 million jobs directly and indirectly in 2012 and that this number could reach 3.9 million jobs by 2025.

These two graphs show the increased production of natural gas and oil in the United States due to the development of shale resource plays.





According to the EIA, from the start of 2007 through the end of 2012, total U.S. private sector employment increased by more than 1 million jobs, about 1%. Over the same time period, the oil and natural gas industry employment increased by more than 162,000 jobs, a 40% increase, representing more than 15% of the total.

In addition, a recent IHS study estimated the total contribution of the energy renaissance was $1,200 to the average American household in 2012.

"This is money that could be used to educate your children, save for retirement or take that long overdue vacation," added Suttles.

Here in Colorado, where 10 of the nation's top 100 natural gas fields and 3 of the country's largest oil fields are located, the benefits are even greater. The oil and natural gas industry now generates over $30 billion in economic activity in Colorado annually. In 2012, Colorado's oil and gas industry accounted for just over 29,000 direct drilling, extraction, and support jobs with average annual wages in excess of $100,000. Coupled with the oil and gas supply chain within Colorado—transportation, refining, wholesalers, parts manufacturers, and gasoline stations—direct employment totaled more than 51,200 jobs.

And the benefits have an impact on daily life for every Coloradan. The EIA recently reported that given the geography, climate, and lifestyle in Colorado, households in the state consume an average of 15% more energy than the U.S. average, yet average household energy costs in Colorado are 23% less than the national average, primarily due to historically low natural gas prices in the state.

Suttles went on to discuss where Encana's dollars go when it invests in producing a barrel of oil in Colorado.

"When we look at where the money goes—state severance taxes, local ad volorem taxes, royalties to the state or private citizens, development costs, employee and contractor salaries, and operating costs—the net result is that 65 cents out of every dollar Encana invests stays local," said Suttles. "When you import a barrel of oil all of the dollars that went into developing and producing that barrel are paid to a foreign country which does not offer any benefit to the local economy or the country."

For any industrial activity the benefits must also be weighed against the risks, and Suttles did not shy away from talking about some of issues around hydraulic fracturing.

Keynote speaker Doug Suttles, president and CEO of Encana, speaks with Leeds School of Business dean David Ikenberry (left) and Colorado state senator Rollie Heath (right).

"We believe the benefits to domestic oil and gas production far outweigh the risks. We measure our impact on the environment not to defend our record but so that we can find more ways to improve our operations," said Suttles.

Hydraulic fracturing is not a new technology; the first well "fracked" was in 1947, more than 60 years ago. Since then more than 1 million wells have been hydraulically fractured across the United States, yet we don't have widespread documented cases of ground water contamination.

Progress and continuous improvement is being made in areas such as water use and reducing air emissions. Companies are working to reduce their reliance on fresh water by recycling produced water; Encana recycles almost 90% of its produced water in its Piceance operations and seeks alternative, non-potable sources wherever possible.

Methane emissions are another concern. Encana, along with other companies, recently participated in a University of Texas study to accurately measure methane leaks in its facilities. The company recently announced its participation in an effort with the State of Colorado, industry peers, and the Environmental Defense Fund aimed at reducing oil and gas emissions.

"By working together, government, industry and individual companies can effectively manage the risks associated with oil and gas production to an acceptable level, while still accessing the tremendous benefits local energy production brings," added Suttles.

To view Suttles' presentation, please visit the Business Research Division website at leeds.colorado.edu/brd.

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REAL ESTATE BOOM, CONTINUED FROM PAGE 5

Denver Investment Sales

Denver continues to be a lucrative commercial investment hub as there has been an uptick in investment in large-scale commercial buildings over the last few years. Panelist **Mary Sullivan**, senior managing director at HFF, believes that individuals tend to migrate to where the jobs are, and they continue to migrate to Denver as there has been 6.9% job growth in the last four years, ranking it seventh in the United States. Furthermore, Denver was recently considered the third-best city in the world for oil and gas, behind Dubai and Calgary. These points, as well as other factors, helped Denver to become one of the top 10 most desired U.S. cities for foreign investment in 2013. As a result, Denver office transaction volume is up significantly over the last few years, and HFF has equaled 2012 office sales in the first three quarters of 2013. Unleveraged IRR's on Class A office space continue to remain high in both the CBD and suburban areas, and replacement costs continue to remain irrelevant. This is leading to significant buying prices on several large structures built in the 1980s that may require minor fix-ups. Furthermore, price per square foot continues its upward march in Denver, which is something that investors are going to have to get used to. That said, recent trends in the marketplace show that buyers are willing to pay a premium for the square footage. Furthermore, Union Station will be a significant buying opportunity despite its astonishing asking price of $600 per square foot. Nonetheless, Sullivan believes this property will revolutionize the Denver marketplace. Sullivan also thinks the Denver marketplace will continue to be lucrative in the future for investors as the energy industry continues to grow in the state and Colorado remains an attractive place to live.

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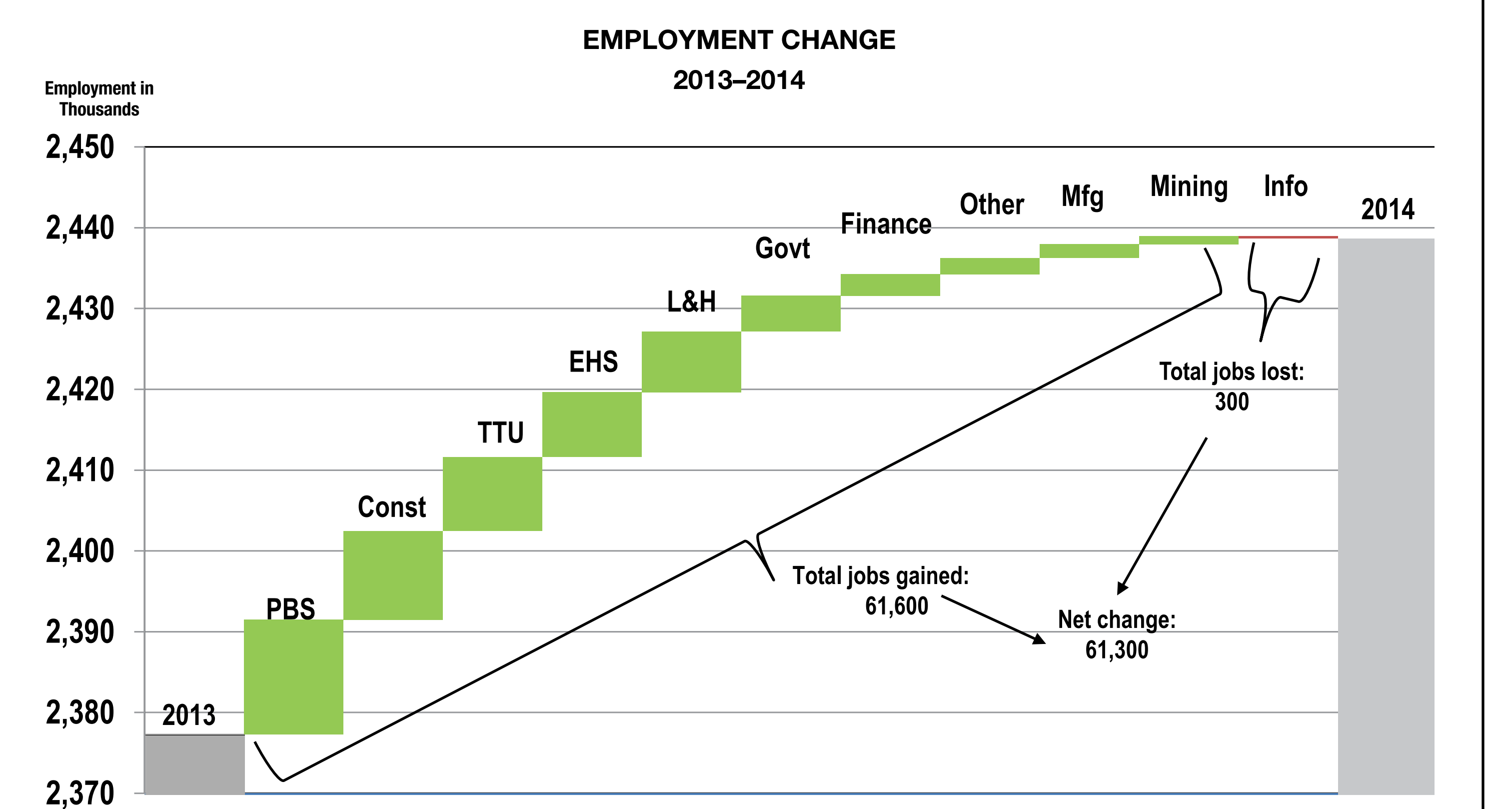

Source: Bureau of Labor Statistics, Current Employment Statistics (NSA).